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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,357	03/23/2006	Meredith Lunn	101046.0001US	9449
34284	7590	07/28/2008		
Rutan & Tucker, LLP. 611 ANTON BLVD SUITE 1400 COSTA MESA, CA 92626			EXAMINER MAUST, TIMOTHY LEWIS	
			ART UNIT 3751	PAPER NUMBER
			MAIL DATE 07/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,357	<b>Applicant(s)</b> LUNN ET AL.	
	<b>Examiner</b> Timothy L. Maust	<b>Art Unit</b> 3751	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12, 13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 13 and 15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-8 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Derving.

In regard to claims 1 and 13, the Derving reference discloses a nozzle (Figure 1) having a spout (1) through which a fuel (i.e., milk is a "fuel" for humans) flows from an upstream to a downstream direction, comprising: a shutoff valve (3); a diaphragm (5) positioned downstream of the shutoff valve, and having a multi-branched opening (16) to form a pressure-activated valve that seals a lumen of the spout against flow of the fuel; and wherein the diaphragm is responsive to fuel pressure in the spout (see column 3, lines 65-68).

In regard to claims 2-4, wherein the diaphragm is circumferentially coupled to the spout, is non-planar and has at least four branches (see col. 3, lines 24-36).

In regard to claims 6 and 7, wherein the diaphragm comprises a continuous piece of a polymer (see col. 3, lines 41-44).

In regard to claim 8, wherein the diaphragm is positioned such that there is substantially no dead space between the diaphragm and the end of the spout (see the positioning of diaphragm 5 and the outlet 4 in Figure 1).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derving.

In regard to claim 5, the Derving reference discloses the invention substantially as claimed, but doesn't disclose the valve being donut shaped. However, it would have been an obvious matter of design choice to make the valve a donut shape, since applicant has not disclosed that a donut shaped valve solves any stated problem or is for any particular purpose and it appears that the invention would perform equally with or without a donut shape.

In regard to claims 9 and 10, the Derving reference discloses the invention substantially as claimed, but doesn't disclose the flexibility of the diaphragm to travel a certain distance or open a certain amount. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a valve that travels a specified distance (0.25 cm or 2 cm), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617F 2d 272, 205 USPQ 215 (CCPA 1980).

Claims 1-4, 6-8, 12, 13, 15-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dame in view of Derving.

In regard to claims 1-4, 6-8, 12, 13, 15-19 and 21, the Dame reference discloses a nozzle (Figure 1) having a spout (32) through which a fuel flows from an upstream to a downstream direction, comprising: a rubber diaphragm (10) circumferentially coupled to and at a position near a downstream end of the spout, wherein the diaphragm has a body and a multi-branched opening (20 and 22) to form a pressure-activated valve; an installation frame (14 and 15); and wherein the diaphragm is responsive to fuel pressure in the spout upstream of the diaphragm such that a portion of the diaphragm flexes between a downstream position that opens the valve (Figure 3) and an upstream position that closes the valve (Figure 2). The Dame reference doesn't disclose having at least three branches. However, the Derving reference discloses another nozzle having a valve and a diaphragm comprised of at least three branches (discussed supra). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the Derving diaphragm for the Dame diaphragm, wherein so doing would amount to mere substitution of one functional equivalent diaphragm for another within the same art and the selection of any of these diaphragms would work equally well in the Dame device. Further, it would have been obvious to design the diaphragm to open at 1.5 atmospheres, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 5, 9, 10, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dame in view of Derving.

In regard to claim 5 and 20, the Dame device as modified by the Derving reference discloses the invention substantially as claimed, but doesn't disclose the valve being donut shaped. However, it would have been an obvious matter of design choice to make the valve a donut shape, since applicant has not disclosed that a donut shaped valve solves any stated problem or is for any particular purpose and it appears that the invention would perform equally with or without a donut shape.

In regard to claims 9, 10 and 22, the Dame device as modified by the Derving reference discloses the invention substantially as claimed, but doesn't disclose the flexibility of the diaphragm to travel a certain distance or open a certain amount. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a valve that travels a specified distance (0.25 cm or 2 cm) or opens at least 90% when subjected to 1.5 atmospheres, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617F 2d 272, 205 USPQ 215 (CCPA 1980).

### ***Response to Arguments***

Applicant's arguments with respect to claim previously presented have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Maust whose telephone number is (571) 272-4891. The examiner can normally be reached on Mon. - Thur. 7:00-5:30pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy L Maust/  
Primary Examiner  
Art Unit 3751

Tlm  
7/22/08